

## Flower Lab

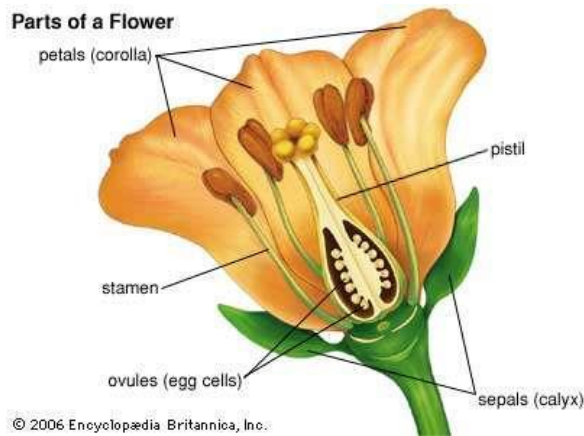
**Purpose:** To examine a flower and identify its non-reproductive and reproductive parts.

**Materials:** — Flower — Magnifying Glass

### Procedure:

#### Part A: Observing the External Anatomy of a Flower

1. Collect a few different flowers from plants in your yard or neighbourhood.
2. Use the below figure to help you identify structures in each. Look for the Receptacle (where flower parts all attach), note the Sepals (small, leaf like structures), observe the brightly coloured Petals. These all make up the Non-Reproductive parts.



3. Note the number and colour of the sepals and petals. Record this information.

Flower Name	Number of Sepals	Color of Sepals	Number of Petals	Color of Petals	Monocot or Dicot?

4. Choose one flower. Use a magnifying glass to identify the male reproductive parts (Stamens). Identify the female reproductive part (Pistil).

5. Draw the flower you examined and label the Petal, Sepal, Stamen(s), Anther(s), Filament(s), Pistil, Ovary, Stigma, Style, Corolla and Calyx.

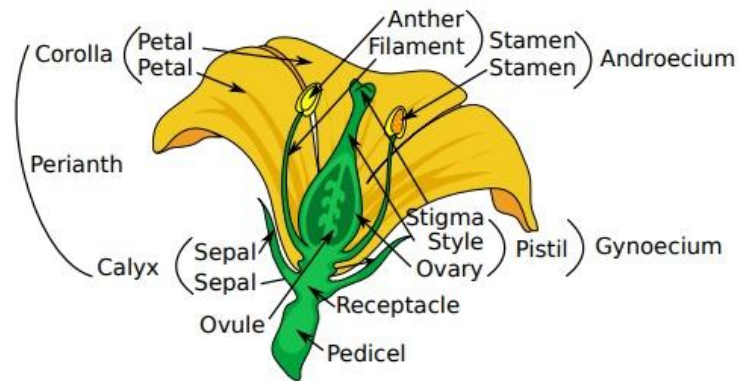


Figure 8.7. Most important parts of the flower.

### Reproductive Structures of a Flower

6. If you dissect the flower, and cut the ovary in half, you should be able to observe the chambers and eggs (ovules).

#### **Discussion Questions:**

1. What phylum do these flowering plants belong to? Explain your answer.
2. What class do these flowering plants belong to? Explain your answer.
3. What is the purpose of a flower?

4. Why does a flower have more pollen grains than ovules?
5. How do most pollen grains get to the stigma?
6. Why is the stigma usually taller than the anthers?
7. Explain why a heavy rainfall on a fruit orchard in the spring might result in a poor fruit yield in the fall.
8. Flowers that are pollinated by the wind have smaller petals and sepals than flowers that are pollinated by insects or animals. Why are small petals and sepals an advantage to these flowers?
9. Why do flowers that are pollinated by insects, birds or bats have large, brightly colored petals?
10. Why do white or plain flowers smell more strongly than colourful flowers?
11. Most non-native flowers are pollinated using the wind. Why is this advantageous to plants that colonize new habitats?